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SCIENCE
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No 3

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MANUAL FOR SCHOOL TEACHING

No 3

Manuals of the Science and Art of Teaching

FIRST SERIES—No. III.

ON THE USE OF WORDS

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These Manuals, with the exception of the last of each series, have been written, at the request of the Literature Committee of the National Society, by men distinguished at their several Universities, and possessed of large experience either as teachers or examiners. The last of each series, that on Class Teaching and that on Apparatus, is the work in each case of a Lecturer on Method at one of the larger Training Colleges.

The writers have endeavoured in each case to connect the practice of teaching with the fundamental principles on which it should rest, and to bear in mind the capacities and needs of the particular class of readers for which these Manuals are specially intended. The chapters have been broken up into short paragraphs, with conspicuous headings, and simplicity of language has been uniformly aimed at.

In order to obtain greater clearness and precision, and to save cross-references from one Manual to another, each subject has been treated independently, and is complete in itself. This independence of authorship has necessarily caused some repetition of matter, but it will be seen that this slight addition to the bulk of the whole has largely contributed to the definiteness and completeness of the separate parts.

ON THE USE OF WORDS.

CHAPTER I.

WHAT WORDS ARE.

THE highest sign of a well-educated mind is the proper use of language, both in speaking and writing. If you have ever been in a foreign country and have not known the language of the people, or have spent a few days in a Welsh-speaking part of Wales, or have tried to communicate with a deaf and dumb person, you would recognise the necessity of words for the commonest purposes of life. Words, then, serve as spoken or written signs, agreed upon between a number of people for the interchange of thoughts.

Other signs besides words.—Beautiful pictures are by some writers recognised as a form of language, because they convey the painter's thoughts more truly than perhaps he could express them himself in words. On the other hand, descriptions written by eloquent masters of the English language are called word-painting. Most of our writers would find it difficult to embody their descriptions of scenery in pictures.

Importance of pure and simple language.—If it is most important for all of us to aim at the *highest, simplest, purest thoughts* that are accessible to us, it is next in importance, both for ourselves and others, that we should

form the habit of clothing them in the *highest, purest, and simplest language* that our education permits. It is of no use at all to employ *fine* words if our thoughts are not *fine* also; on the other hand, we are of little use to others, if we cannot express our ideas in good language. Words should be signs for communicating our highest thoughts.

Perhaps the dullest books for children to turn over are dictionaries, which give us, in the shortest form, definitions of the words we use. But you would be astonished if you knew what pleasure a scholar can find in comparing and classifying words, in tracing out the first common-place meaning of a word; for every one of them has been employed to express some impression on our organs of sense, before it was used to express our mental ideas. Good dictionary-makers are not simply dealing with combinations and collections of letters; they are living in company with minds whose thoughts can be traced through the changed meanings of words. Turn to any page of a good dictionary and see what knowledge of the history of words is required. When Dr. Johnson compiled his book, very little was known of the history of words, and there was very little play for high literary faculties. Johnson called himself a 'harmless drudge;' the arrangement and tabulation of the words was drudgery, but the wide reading of many authors and the keen logical power of definition required for his task are not the ordinary signs of a drudge.

The study of words is a study of men's thoughts.—Archbishop Trench, in his 'Study of Words,' quotes the expression 'fossil poetry,' as descriptive of words; not in the first literal meaning, that the words are dead and have been dug up again, but in the sense of 'preserving and making safe for ever' the beautiful thoughts and feelings of men long dead and of some whose very names *have been lost.* It has been often disputed whether Homer *wrote all those* beautiful poems that pass under his name;

in such cases, where History is dumb, the words and thoughts of the author are carefully scanned, because they are the only witnesses to the unity of the authorship.

The same author calls words 'fossil history.' The word 'England' is itself a piece of history; London is full of fossil history; such ugly names as Addle Street, Gutter Lane (two neighbouring narrow lanes leading into Cheapside) tell of times before the Norman Conquest, when one street was inhabited by Adel or Nobles, and the other contained the house of the leader Guthrum. See whether you can find out the meaning of the name of your own town or village, as a beginning to the study of 'fossil history' in names.

Exact use of words.—Words are useful for communication according to their exact signification at the present time. We have limited our definition of words to the articulate sounds we employ in speaking or to the written characters which we connect arbitrarily with the spoken words. But we should restrict our definition still further by the addition that words are useful in so far as they help others to comprehend our thoughts. A discovery would be useless unless some name were given to it by which its exact signification could be recalled to others. A short compound word is better for the purpose than two, and a native word is more quickly appreciated than a foreign one. In trades peculiar to a single country, words like 'spinning-jenny' are common; in sciences which belong to all mankind words from Greek or Latin are generally employed as a common scientific language. The names 'telegraph,' or distant-writer, 'microphone,' or minute-talker, express the powers of each instrument in a short form. 'Gravitation,' again, expresses in a short form, not only the force by which all objects on the earth are drawn towards the centre of the earth, but the heaviness which is *the sensible* result of that attraction.

We cannot invent words.—You may be astonished, and say, What! are the words 'telegraph,' 'microscope,' not words of modern invention? We answer they are not words of modern *invention*, but of modern *composition*. As any workman cannot create, but only bring things already created into union more or less close, so a word-maker can only bring together elements of words already existing, and combine them into a fresh word. The Roman Emperor Augustus said he could command almost anything to be done and be sure that he was obeyed, but he confessed that he could not make a new Latin word. He could not even introduce phonetic spelling, though he is said to have desired it.

We can trace the history of words to a certain point. We cannot find out their actual beginning, but we can trace them back to very simple elements of letters and to simple meanings expressing something seen, or felt, or heard,—some impression upon one of the senses. If you wish to make your words intelligible to a child, whose stock of mental ideas is very limited though he may have a comparatively large experience of objects and their impressions on his senses, you should give the first simple meaning of the word before you give the derivative meanings. For example, you wish to give a child a clear conception of the word 'shire.' He would be more likely to take interest in it and remember its meaning, if he were told it was a piece 'shorn off.' We might point out the moral truth that a 'naughty' child was a 'nothing' child or a worthless child, as the words 'naughty figs' are used in our English Bible. Will your scholars believe you if you tell them that 'scholar' once signified not the poor over-worked learner of modern times, but the student who had leisure to spare for pleasant voluntary study? 'Calculation' becomes pleasanter and more practical if it reminds you and your scholar to practise *arithmetic with* real objects, such as the 'pebbles' with *which Roman boys* were taught arithmetic, in order that

they might see and handle the results of calculation. 'Good-bye' and 'farewell' tell their own story more plainly, but it is a story that is not often read. You will have gone back far enough in the history of a word, if you come to some meaning that describes an impression made upon the senses; but do not think that you have grasped the full conception till you find some common point, in which all other meanings centre and from which they can be *derived*. The word 'de-rived' is itself significant; all other meanings come from the primary meaning, as the waters of a 'river' flow 'down' from their source.

The meaning of words often changes for the worse, and every one who uses them carelessly contributes to their degradation. In many cases this amounts to a moral degradation; we allude especially to words connected with religious and Christian duties. Probably you know the common degradation of 'charity' or Christian love into giving alms to mendicants; 'religion' has almost lost the sense of that which binds us close to God; but the greatest evasion of truthfulness in words is to be found in the employment of euphemistic terms to express breaches of purity and chastity. We advise you, therefore, to be careful, especially in religious and moral subjects, to use such words in their purest and strictest sense.

Origin of words.—We have seen that when we require a new word, we cannot make one except by compounding words already existing, and that we can trace many words back to a certain point, but cannot answer the question—How did language begin? What faculty of man originated the first word? Some words are evidently taken from sounds, as the cries of animals, or the sounds of the powers of Nature. We hear the 'rustle' of leaves; we know that a bear does not 'mew' nor 'purr,' that a serpent does not 'roar,' nor a lion 'hiss.' Some combinations of *letters, as st* in 'stump,' 'strong,' 'strive,' 'steady,' express

solidity or fixedness by the decision required for the utterance of the word. Difficult, harsh-sounding words stand for unpleasant ideas, as easy smooth-flowing words for pleasant ideas.

But we cannot say generally that a satisfactory account of the beginning of language is to be found in its supposed origin from cries of animals, which has been called in derision the 'bow-wow' theory of language, or the other explanation called the 'pooh-pooh' theory, that words were originally exclamations, or, as we should call them when used in the middle of our conversation, 'interjections.'

Scientific study of the origin of words.—Words, like every other phenomenon that is governed by natural laws, have a science of their own. You know that in the great discoveries of science, sometimes the theories outrun the facts, sometimes the facts accumulate, till the larger mind interprets them and reduces them to a system of laws. A large number of learned men have been studying words and their history for many years; but instead of building up theories about the origin of words, they have followed the scientific order of comparing words and their relations as they exist in different languages, in order to discover the laws that govern their changes. This science is called Comparative Philology; and if you know a little Latin or French you can compare many English words with their corresponding forms in other languages. You can see how the Norman conquerors allowed the Saxon peasants to keep the names of ox and sheep, while they took the meat for themselves, and called the flesh of one 'beef' (bœuf), of the other 'mutton' (mouton).

Classes of languages.—We need not say much about the results of these investigations; most of the text-*books on gr*ammar will furnish you with a list of the prin-*cipal classes into which* languages are divided, and you will

see that our language is a member of a great European family which has a great many cousins both dead and alive in nearly every part of Europe, and that the ancestor of all these cousins was a language spoken by nobody at the present time.

We wish you to remember also, that, the further we go back, the smaller is the original stock of words, and thus our former statement is confirmed that we cannot make new words, but can only compound old words to represent new ideas. How many words do you think could be formed of six words containing only one syllable, taken together in every possible combination, two at a time, three at a time, etc.?—no less than 873.

First meanings of words.—Take then any word you please, and you may always rely upon it that it had at first some meaning, connected with one of the five senses, and represented a sensation or an object of sensation before it represented an idea or a thought. We talk of grasping another person's idea, but the first meaning of grasp, we all know, is to 'lay hold'; if we had said we apprehended another person's idea, unless you knew that 'to apprehend' comes from the Latin word 'to grasp,' you would have missed the first meaning of 'apprehend.' To 'give up the ghost,' or 'breath,' or 'spirit' all signified originally the same thing.

Do not use words whose first signification you cannot trace.—This is a very important caution, and will prevent your falling into ludicrous mistakes, like the man who, in the course of his speech, proposed to *embark* on the *feature* on which the question chiefly *hinged.* If he had reflected on the first meaning of the words, he would never have mixed his metaphors.

You will also be saved from such words as 'awfully,' 'tremendously,' &c., whose only point consists in a perversion

of the pure original meaning of the term. You will be saved too from *fine* English; homely simple words of pure English are the best to use. Unless you know the first meaning of other words, use Saxon-English words. If you are ignorant of Latin and Greek, you will do wisely to avoid employing words derived from those languages. Of course, in many cases they are the best to use, when there are no pure English equivalents. But if you take up a passage of good English, and classify the words contained in it, you will find that the purely English words are at least four or five times as many as words derived from other sources. We extract the following passage, not carefully selected, but taken casually from a standard modern English author. 'The smoothness with which the verses glide, and the elasticity with which they bound, is to our ears very pleasing.' In this passage two words are evidently of Latin and one of Greek origin, but the others, with perhaps one doubtful exception, are English. If you will take a little trouble, you will soon, by help of a good dictionary and a few laws of language, be able to grasp the first meaning of a word. If you had to choose between 'stream of time' and 'course of time,' you would do wisely to choose 'stream.' If you did not know that 'course' signified running, you would lose the mental picture of motion which corresponds to the idea of mental activity.

The same rule applies to compound words, as 'man-hood,' 'hard-ship'; the latter parts of these words are in most grammars simply treated as suffixes, but they were once nouns, had their own sense-meaning, and were not mere expressions implying states or conditions.

[NOTE.—This important subject is treated more fully in Chapter V. on *English* words.]

CHAPTER II.

HOW WE ARRIVE AT THE FULL MEANING OF WORDS.

We begin this chapter with a recommendation to all students of grammar to select a book on grammar which follows the natural order of developement of our thoughts and words, and makes its rules and definitions dependent upon that order. It is probable that all words were originally names of objects before the names of qualities were abstracted from those objects, i.e. before adjectives were formed, and before the differences between two states of the same individual were distinguished. In Hebrew, which possesses a grammar of greater simplicity than our own, it may be seen that a large number of words were nouns first, and that the same word is converted afterwards into an adjective or a verb by the addition of inflexional endings to denote cases or tenses, and that these inflexional endings are themselves only short *words* added to the original noun. Indeed it is evident that the first appearance of any object, or even its repeated appearances under the same circumstances, can give rise to no comparison; there would therefore be no analysis of the qualities of the object, and *the name of the object*, e.g. 'mother,' would be the first word employed. But when a number of objects, e.g. a mother and other persons, are seen together, they are compared with each other, and their qualities are judged to be like or unlike. These qualities would, therefore, require names, and adjectives would be formed. Again, *two or more* appearances of the same object under different

circumstances, e.g. the mother sitting, standing, laughing, would suggest different states, and the verb would be formed. We leave it to the grammarian to follow out precisely the details of the growth of other parts of speech according to natural laws.

First names are nouns.—We might say, as a grammatical caution—take care of your nouns, and the other parts of speech can take care of themselves. We suppose that every child, being naturally a 'sociable animal,' and wishing to share its ideas with others, attempts from the first moments of consciousness to communicate its impressions. For example, a visitor with a kind face, wearing a red dress, may visit a young child's mother, and the child may be taught to call her 'aunt.' The red dress, as well as the smiling face, will form part of the object called by the name of 'aunt'; there has not been as yet any attempt to analyse or separate the different qualities of the object. In fact, we learn to speak before we learn to think, and after we have begun to feel. A child notices similarities before it notices differences, and is quite content to employ the same name for objects presenting only slight differences.

Second names are adjectives or names of attributes.—Very early in a child's life he begins to make comparisons of several objects, and to distinguish the accidental circumstances attending them from the essential qualities. For example, the child soon begins to notice that one condition is not always present—that the aunt is sometimes dressed in blue, sometimes in red, whereas the smiling face and kind look are always there. These latter become the invariable attributes of the aunt, the former the variable conditions. It is probable that this would be a child's first unconscious analysis of his ideas, *because his experience* is at first limited to a few objects *appearing under different* conditions; but very soon objects

begin to crowd upon him so fast that it would be impossible for him to give a distinguishing name to each. The microscope itself tells us that there are worlds beyond the power of the microscope to distinguish; equally bewildering to any human being, and especially to a child, must be the immense number of objects that are brought daily within his reach. It becomes impossible to have distinct ideas of each particular object so that distinct names can be given to each. No human understanding could be found sufficiently capacious to apprehend and remember every animal, tree, person, by a distinct name. Besides, the very naming of all these objects would defeat its own end; people wishing to converse together would find this accumulation of particular terms a very serious burden. For example, if three cats with different coloured fur were not to be called cats, but were each to have a different name, it would be bad enough; if each cat with the same coloured fur might not have the same name, it would be still worse; no two persons would be able to exchange ideas on the subject of cats.

Recognition of classes through common qualities.—The question would, of course, naturally arise, Is it necessary to have a different name for every cat? It is true that they have all differences, but they have all also points of resemblance. Mankind has, therefore, always proceeded to *compare* two objects, to notice the points of resemblance and the points of difference. The points of difference would be excluded as not being essential to the class to which the object belonged; the points of agreement would be carefully gathered together as attributes of the class, or as marks by which the class would be named and distinguished. This account of the process by which we analyse the qualities of objects holds true at every stage of education. For example, if we wish to give an older child a clear idea of an island, we should have not one model only of an island, but we should be careful to have several

models varying in details—one rocky, another flat, another indented, and so on—in order to separate the accidental conditions of particular islands from the essential quality common to all islands, that they are surrounded in each case by water.

If we were teaching a higher class noun-sentences in grammar, we should present a variety of passages showing the forms of the noun-sentence differing according to the introductory particles. We should also exhibit the noun-sentence in some cases as the subject, in others as the object of its principal sentence, so as to eliminate the variable circumstances of form and position, and to leave only the essential quality of a noun-sentence.

Classification.—Anyone who observes attentively a class of objects, who notes their essential properties and gives names to them, cannot fail to have a good command of clear appropriate language. We advise all young teachers to practise such classification carefully, to collect a variety of leaves or flowers, to observe a number of animals of the same class, and to find appropriate names for their points of resemblance; these names will be the marks by which the class will be henceforth known to him. Always find clear and appropriate names for the object and its qualities *at the same time*; otherwise your ideas will fall back into the confusion and indefiniteness from which you have called them out. Thought and language should always go together; if you have a complete, perfect thought, *find its corresponding word at once.*

Abstraction.—Part of this process is called 'abstraction,' a term very often misunderstood and misapplied by young teachers. The word 'to abstract' merely means to draw away or separate. The term 'abstraction,' applied to the mind, signifies the power the mind possesses of contemplating one *quality of an object* apart from its other qualities. The

mind has the power of separating ideas which are intimately connected by nature and cannot be separated in any other way. We can abstract the qualities of the tiger and the cat, take those common to both and commence the classification of the cat-tribe of animals. We can abstract the common qualities of the cat-tribe and dog-tribe of mammalia, and proceed with the classification of mammalia, and by a further process of the same kind arrive at the class of vertebrate animals.

It is not necessary for abstraction that all the individuals of a class should be present to our minds. We can classify horses, i.e. state all their essential attributes, without seeing all the horses in the world; we can form an accurate definition of honesty from two or three well-told anecdotes of different forms of honest dealing. Abstract terms, being relative terms, can be employed only in relation to the class from which the abstraction is made. Abstract nouns or names are commonly defined as 'the names of things that we cannot see,' or of 'something that we can conceive only in our minds.' But when we remember the meaning of the term 'abstraction,' we should always, in our definition of abstract nouns, state that they are the names of qualities *separated from the class to which they belong*. Wisdom can only exist in connection with wise persons, industry with industrious citizens.

One abstraction may serve as part of a still wider abstraction; a species may be included within a genus, and only a part of the marks of the species is included in the marks by which the higher class is identified. A herring shares with all true fishes the common qualities of cold-bloodedness and apparatus for breathing, but it has its own differentiating qualities to separate it from other fishes. When you come to classify it with all backboned animals, you leave out of sight some of the marks by which fishes are distinguished from other classes of backboned animals. Every upward step of classification requires fewer common

qualities for definition of the class, but includes a larger number of objects within the class.

For an example of higher abstraction in the case of moral qualities, we may take the physical courage of the strong soldier in battle and the moral courage of a suffering woman; both are rightly called courage, but some of the distinguishing marks by which each separately would be defined must be omitted; the remaining marks will constitute the marks of their common courage.

This power of abstraction is really one of the highest powers of the human mind; and though it is true that all the powers of the mind are being unconsciously employed by children from their earliest years, we doubt whether the abstract idea, i.e. the quality of an object contemplated apart from its object, is ever removed by children to any great distance from it. For example, if you were to tell your class to think of a horse, we doubt whether any one could help thinking of some familiar horse, and the colour, shape, &c., of that particular horse would be mixed up with the general qualities of a horse, by which it was distinguished from other animals. Or, to take another example, would you expect young children to form an idea of bravery or self-denial apart from their typical hero, Cœur-de-Lion or Sir Philip Sydney? We have before observed that the abstract quality cannot exist without the class, and a class cannot be formed without a statement of those abstract qualities; the question arises at what point can we assume that a child can separate the quality and the object? We answer, not until the child *can select an object for himself*, and show that the object selected possesses the qualities named.

Definition.—We hope we have shown that a definition, instead of preceding a lesson, as it often does, should be the conclusion of a lesson or of some definite part of it. Consider what a definition is; it is not the giving of additional knowledge, it is the summing up, the gathering into a

few words of all the ideas that have been obtained by a careful comparison of a number of objects, by the abstraction of their common qualities which are grouped so as to represent a class; nor can the terms of a definition be of much use before these ordinary processes of thought have been performed.

In the 'Cultivation of the Senses' you have been shown how to direct to the best advantage the organs of sense in connection with single objects; in the 'Cultivation of the Memory,' you have been directed to select only those phenomena which were most likely to interest children; in the few foregoing pages we have shown you the process of thought by which you are guided to select the terms that are most appropriate to the qualities common to a class of objects.

Other words.—We are not concerned in these few pages with the *grammatical* division of words into parts of speech; we have thought it sufficient here to indicate the mental law that requires names to be given to objects and their attributes. These names enable us to communicate the results of observations made upon all subjects of thought. All definitions can be reduced to one simple form by insertion of the word 'is' between the names of the object and its attributes,—e.g. iron (is) flexible, malleable, etc. If we wish to state that a dog has four feet or feeds on flesh, we can state it concisely; a dog is a quadruped or carnivorous; each quality being fixed and recalled to memory by its own appropriate sign or word.

It is essential that children should attach the correct names to each object and to its qualities. If you object to the terms 'malleable,' 'flexible,' etc., on the ground that they will never form part of the child's future vocabulary, use the Saxon verb instead of the Latin adjective. You can support your statement that iron can be *hammered out* by showing a horse's shoe, or that copper can be drawn out by a piece of copper wire, or that monkeys have four hands by the

picture of a monkey climbing a tree, and may thereby avoid, in an infant school, the use of the words 'malleable,' 'ductile,' 'quadrumanous.' But we shall have something to say presently as to the proper use of words that are only difficult because the teacher has neglected to explain and illustrate them; for the present we content ourselves with saying that no word is really difficult for children if properly treated at the outset. We regret very much that teaching by *words* without suitable illustrations has made object-lessons comparatively worthless as a means of education.

A correct use of words is acquired by repeated and varied practice. You must not think that a single specimen will give a child the full meaning of the name of any object: a boy who has seen *iron* hammered out will fail to form an idea of the extreme tenuity to which *gold* may be hammered out. A large variety of leaves and flowers should be introduced for a botanical lesson; live mice, stuffed mice, pictures of mice should be introduced in a lesson on a mouse.

Besides this variety of illustration for the senses, children may be asked, as a kind of pastime, to name domestic animals with four legs and cloven hoofs, or wild animals of the cat tribe, or the various workmen employed in building a house, or the articles in their mother's kitchen and their uses. They may be asked to name the qualities of objects: 'Mary has stolen her brother's cake—is she selfish, or greedy, or gluttonous?' You may give incomplete or incorrect definitions: 'A donkey is a cloven-footed quadruped;' 'A bat is a small bird of prey;' 'Tin is bright, can be drawn out, and hammered out;' and ask your class to complete or correct them. You can test the correct recognition of ideas obtained through the senses by asking them to name objects distinguished for special sensible qualities, such as brightness, weight, and colour, and to distinguish those that are pleasant to each sense from those that cause unpleasant sensations. *We have seen* a pretty method of teaching pursued in some *infant schools. One of* the children assuming the stool of

the teacher, who stands by as assessor, asks his companions to state the properties of some object he holds in his hand, and their reasons for assigning those properties. This variety of method ensures that the same word shall be repeated with different associations; not borrowed from a text-book, but uttered with the freshness of a childish mind, that has pictured the object to itself. The names of objects and of their properties acquired by these methods will supply abundant material for more advanced lessons.

CHAPTER III.

HOW WE COMBINE OUR WORDS.

We have sketched out for you in the preceding chapter the natural process of thought by which we arrive at general names. We become conscious of particular objects; we observe their likenesses in spite of their unlikenesses; we abstract these likenesses from the objects; we collect all the objects possessing them into a class; we give a name to the class, and this name becomes from that time an equivalent in our minds for all those qualities, whenever we choose to recall them, not collectively, but separately. For you must not suppose that we always recall to mind all the qualities of an object whenever we employ its name; as they first came into our minds separately, so they recur separately. For example, if I say, John is a lazy boy, having in my mind the fact that John has not learned his lessons, I understand only that he is lazy with that particular laziness among the many forms of laziness; or if I say a horse is a quadruped, I select one of the properties of a horse that suits my especial purpose.

Again, the word 'school' is a slow growth in a child's mind; probably he has seen the outside of a building, before he was introduced to it as a place of study, or had learned to identify the place with the scholars and teachers. When he has once acquired the full meaning of the word 'school,' as a complex whole, including all three significations, he may return to each separate use, as in the sentences, 'Our *school has a* slated roof;' 'I had an arithmetic lesson at *school to-day,' or,* 'Our school is broken up for the holidays.'

It is essential that you should bear in mind that every word covers a number of separate ideas, and that it is not always easy to know at the outset in what sense it is used; indeed, much confusion of ideas arises from an habitual want of forethought, especially in religious matters. Two persons will not take the trouble to settle upon the meaning of words before they begin to wrangle.

Limitations to the employment of general names.—We are agreed that it would be useless to multiply the number of general names, or to divide the vast number of objects which surround us into an excessive number of classes. The number of general names would be infinitely great, and our memories uselessly burdened. We employ in ordinary matters general names only for those classes of persons or objects that come before us in considerable variety. For example, in our family relationships we employ general names for those relationships that occur frequently in most of our families, such as aunt, cousin, grandfather; but for more distant relationships which come less frequently within our experience, we employ compound words, or words expressing number or order, such as great-aunt, second cousin, etc. The contrary takes place in sciences: every fresh discovery requires additional names, which form a distinct language to the student, utterly unknown to the outside world.

Do not be discouraged by a hard word in science or in school studies; say to yourself, There must be some common sense meaning for the word; I will try to find out what the discoverer, when he gave the name, was *looking at.* How did you master the term 'river-basin' in geography, and 'complex sentence' in grammar? First, by seeing various models or examples of each, and abstracting their essential qualities from the varieties.

A good knowledge of class-names is essential to clear description and accurate thought.—We

advise you to accumulate a large stock of class-names. It is said that an agricultural labourer employs only five or six hundred words in addition to the terms which represent his own division of labour, such as 'plough,' 'harrow,' etc. How can he make himself intelligible to others, except by long and circuitous phrases, employing five or six words where a cultivated mind would have employed only one? Learned men who have translated English into some foreign language have found the same difficulty for want of proper class-names to represent ideas unknown to other nations. It is impossible to translate 'gunpowder,' 'telegram' into Latin or Greek without employing several words. Boys who learn to harness a horse, and girls who help in a kitchen, pick up a number of words very useful to them for communicating quickly with others. 'Rub against' as many persons of different vocations as you can, and pick up the words of their special calling. Dictionaries would help you in a feeble fashion to find out the meanings of many nautical or farming terms; but the sailor or the farmer can give you their exact names and definitions. You derive then this advantage from a large stock of general names, that a great number of objects which belong to the same science can be reduced to order in your mind by the help of a few terms. If you are fond of botany and country walks (as all young people should be), the infinite variety of plants, leaves, roots, and flowers, which would painfully puzzle an ignorant person, will be a real pleasure to you; the classes will be old friends, the varieties new acquaintances.

It is supposed that you have acquired a good stock of names to represent those objects and their attributes that come frequently within your experience. It would be difficult to define the frequency that entitles a person or an object to a general name: the term 'pupil-teacher' should *apply to all young* persons who are both learning and *teaching, but it has* been appropriated to apprentices only,

and we are obliged to add 'who are not apprentices' to describe all others. All such additions, whether made by adjectives or adjective sentences or phrases, you will find explained in 'How to Teach Grammar.'

We combine our words into statements.—When we speak of any object, language would be of little use to us, if we did not make some statement about the object. We may make statements in two, or three, or four, or any number of words: 'Cats purr,' 'John is industrious,' 'Our Queen is good,' 'The men who called yesterday will come again to-morrow.'

But you should observe about all these sentences, that they are either expressed in, or can be reduced to, one simple form of sentence. They can be divided into: 'Cats (are) purring animals,' 'John (is) industrious,' 'The men who called yesterday (are) coming again to-morrow.'

In the middle of the sentences you see a little word joining the two principal parts of the statement: these parts are called in all books about reasoning, the 'subject' and the 'predicate.' Very probably in your grammar you have been taught to consider the verb only as the predicate of your sentence. We ask you for the present to banish that use of the word from your mind, and to consider all statements as made up of two principal parts, each of which can be analysed according to principles and rules of grammar with which we are not concerned here.

All statements are made on one common principle.—What is this common principle? We have present to our minds some 'subject' of our thoughts; if we are thinking of one or more objects, we declare that it or they do belong or do not belong to a certain *class* expressed by the predicate; if we are thinking of a class or classes of objects, the predicate expresses a *higher class*. For example, when we say, 'A monkey is a vertebrate animal;' 'A fly is an insect;'

'John and Mary are industrious;' 'Those boys and girls are not lazy,' we mean that a monkey belongs to the *higher class* of backboned animals, which includes also horses, cows, etc., John and Mary belong to the *class* of industrious people, etc. Make a number of statements for yourself, and you will see that they all, whatever may be their length or complexity, involve only two principal parts, and that the predicate represents a *class*, inclusive of the subject, whether the subject represent a particular object or class of objects.

How we reason or form conclusions.—You will say, perhaps, 'I have been reasoning all my life; I could not have understood what you have written, if I had not been able to draw conclusions.' Quite true: man is from the beginning of life a rational as well as a sociable animal. He does not suspend his reason till he has learned how to reason, any more than he forbears to digest till he has learned the process of digestion. But every one gains by being taught how to reason, for he will think more clearly when he can trace the starting point, the road, and the goal he aims at, and the greatest gain from learning how we reason is the knowledge how we often fall into wrong thinking. Perhaps you never think wrong; if so, you will of course derive no profit from such learning. But it is only within the last three centuries that the true principles of reasoning from nature have been established. It used to be thought that we could *begin* with a statement in words, and by a process of connected reasoning be led from statement to statement without appealing to realities. We give you an instance. You may have enjoyed pumping water, and have watched the water pouring out; you know that the pressure of the air forces the water upwards into the vacuum caused by lifting the piston. We have learned that and other natural laws by following the natural law which governs our own minds, when uncontrolled *by prejudice, of* going straight to nature. But formerly they *would have begun with* big words, 'Nature abhors a vacuum,'

and would have considered that indefinite statement, couched in ambiguous words, quite sufficient grounds to account for realities.

We are from the beginning rational animals.—Even children are not content to be mere recording clerks for the purpose of making statements of what they have seen or heard. If anything happens, their busy minds will connect it with some other event resembling it in some one or more of the attendant circumstances. A child has eaten red currants, red cherries, red strawberries; he is quite likely to infer that all red berries are good to eat, and would probably eat deadly nightshade fruit if it came in his way. The church bells are ringing, they were rung last week for a wedding; the first inference is the thought of another wedding; whereas some ringers have come over from the next parish to try their skill.

Reasoning from likenesses the first ground of our statements.—In all reasoning like the above, 'many a little makes a mickle;' but likenesses can never make a certainty, though they may make the highest degree of probability. You see some one like your sister Mary coming along the road, you recognise Mary's way of walking, the colour of her dress, the shape of her bonnet, you feel sure it is Mary. As the girl comes near, perhaps some one unlikeness is quite sufficient to counterbalance all the likenesses, and it proves not to be your sister after all.

The necessary parts of all reasoning.—In the last example we imagined a single person forming his opinion, and changing it according to the impression made by different facts being presented consecutively. But you may often hear contrary conclusions drawn from a single fact, and you know that the disagreements of doctors are a proverb. If two truthful, sensible persons disagree in this

way, there must be some concealed thoughts passing in their minds. Let us see whether we can render visible these invisible thoughts. Suppose Tom has absented himself from school on a certain morning: one schoolfellow will suggest that his mother wanted him at home, another that he had played the truant, another, who is fond of horrors, that he had fallen down and broken his leg—three different conclusions are drawn from one simple fact. All agree, doubtless, in the general principle, that only exceptional circumstances keep industrious boys from school, but they differ in their opinion of John, whether he is or is not industrious; therefore they decide for or against an exceptional cause of absence. But we ought to go a step further back and find out their reasons for different opinions of John. They could all agree in one general principle, that certain acts, learning lessons, punctuality, etc., are signs of an industrious schoolboy; two of them had observed many such signs in John's behaviour; the second, for some reason, had seen only a few.

We may put the two conclusions in the following way:—

Industrious boys are prevented only by exceptional causes from coming to school;
John is an industrious boy;
Some exceptional cause has prevented John; or the opposite.

Again—

Industrious boys perform certain actions;
John has been seen to do these actions;
John is an industrious boy; or the opposite.

We see, then, that in both the examples given there is a wider statement or a general principle which must be applied to a narrower statement before any conclusion can be drawn. It will be of service to you to practise examples *of such forms of* reasoning, that you may be able, whenever *you come across a* manifestly false conclusion, in Euclid or

grammar or any other of your studies, to detect which of the two parts of your reasoning was incorrect, the wider or the narrower statement.

For example, if I were told that a certain plant would not thrive in a certain country, I should first investigate the wider statement as to the character of the climate that suited the plant; and secondly, the narrower statement whether the specified country did possess that climate, and from comparison of them should conclude the correctness or incorrectness of the statement.

See that your general statement is duly and accurately framed.—In moral and religious questions you should be especially careful as to the principles you hold, and ask yourself, What is my ground for this statement? Have I framed it fully and in precise terms? Do I know the meaning of each term? It would be of no use to continue an argument with an opponent, unless your more general statement or principle met with unqualified approval. For example, John is an industrious boy, but has not come to school: if you attempted to lay down an absurd general principle, 'All boys who do not come to school are lazy,' John would justly dispute your general principle and insist upon your qualifying it by the addition, 'unless they are prevented by reasonable causes.' The sense of injustice that rankles in little minds from unjust general statements is very painful. A very dull lesson may be given to children sitting on high benches with no support to their feet or backs; and an absurd sweeping statement, 'All fidgety children are naughty,' may be enunciated as sufficient justification for undeserved punishment.

The narrower statement may be disputed.—Two persons may be agreed upon the general law, 'All birds lay eggs, and mammals do not lay eggs.' But one of the

two, perhaps, has been misled by the fact of a bat's ability to fly, and has classified the bat with birds; the other knows better, and has picked up a bat, and, being fond of animals, has carried it into a safe dark corner. The first would say, 'All birds lay eggs, a bat is a bird, therefore a bat lays eggs,' and would, perhaps, invite the other to search for its nest.

A story, which is attributed to others also, is told of our Charles the Second, that he propounded the problem, why did not a bowl full of water overflow when a gold fish was dropped in? It never occurred to the assembled philosophers at first to doubt the fact, till one more sceptical than the rest made the experiment of putting the gold fish into the bowl, and found that the water overflowed. Do you believe all the statements made in newspapers and books of travel? You may almost always believe all that the writers say they saw with their own eyes, but you should receive other statements with caution. The 'Father of History,' the Greek writer Herodotus, can always be believed, because he draws the distinction between what he actually saw and what others told him.

The order of reasoning is sometimes inverted.—We often draw our conclusion before we give the reasonable grounds. We may say either, 'It will be fine to-morrow, the sky was red to-night;' or, 'The sky was red to-night, it will be fine to-morrow.' Both expressions may be brought to the usual form of stating a conclusion: we have first the general principle, 'Red skies in the evening precede fine morrows;' secondly, the particular statement, 'I saw the sky was red to-night;' and lastly the conclusion, 'It will be fine to-morrow.'

If you were speaking to a child who had not seen the red sunset, you would give all three parts of the reasoning: *'It was a red sunset to-night*; red skies in the evening mean *fine mornings; we shall be* able to go for our walk to-morrow.'

If the child was looking at the sunset with you, you would of course omit the first particular statement. If you were talking to an older person who knew the general rule, you would say, 'It was a beautiful sunset, we shall have a fine day to-morrow;' if he was looking at the sunset with you, you would simply say, 'It will be a fine day to-morrow.' We give this example to show you that all three parts of a complete reasoning need not be expressed, but must be always present to the speaker's mind.

Reasoning in Geometry.—We cannot better illustrate what is said in the foregoing pages than by stating clearly the course of reasoning in books on Geometry. We are asked in each proposition to fix our attention on two groups of thoughts.

(1) The assumptions and statements made by the author.

(2) The conclusions he draws from them.

The proof is then divided into the following parts:—

(1) The writer states certain facts, and constructs for that purpose a certain figure, which you can verify for yourself by actual measurement.

(2) He lays down certain axioms or first principles, which he does not attempt to prove, but claims to have them allowed on the ground that they evidently challenge our immediate belief.

(3) He claims also to be allowed to employ in the course of his argument other general principles or propositions which have been already proved.

You may dispute any one of these separately; but if you allow them all, his conclusion follows necessarily. Take, for example, the fifth proposition of the first book of Euclid's Elements of Geometry. The assumption is made 'the two sides of a certain triangle are equal;' the conclusion is to be drawn, *that* 'the angles opposite to the equal sides are equal.'

1. You have a figure constructed, including all the facts which you require.

2. Look carefully at the reasoning and you will see there are four separate arguments, each requiring a general truth, and a particular statement before the conclusion can be drawn. In the first and third arguments the general truth involved is the previous proposition, which has been already proved, in the second and fourth the third axiom, which was assumed to be true in the beginning of the book. The particular statements involved are, in the first and second arguments some of the facts of the construction, in the third these and the conclusion drawn from the first and second arguments, in the fourth the conclusions from the first and third.

Do not be satisfied with merely learning the propositions of Euclid; take each step by itself and ask yourself what principle is involved, what statement of facts; each conclusion, fairly drawn, is a stepping-stone to another.

Analysis of complicated or condensed arguments.—Another useful exercise in thinking would be the treating a longer train of reasoning as you would reduce a compound proportion sum to a series of simple proportion sums. For example, you will often hear the principle maintained, which we believe to be true, 'In all well organised schools good discipline can be maintained without corporal punishment.' We evidently want two general principles: what do we understand by good discipline and good organisation of a school? We lay down the general proposition that really good discipline is the maintenance of order through the voluntary co-operation of the children; if we add to this the obvious statement that corporal punishment is a proof that the voluntary co-operation of the children is not secured, we conclude that good discipline excludes corporal punishment.

We can proceed to a second argument, and state as a

general principle, 'A school cannot be well organised without good discipline;' we add to this the conclusion just proved, that good discipline excludes corporal punishment; we arrive at another conclusion, 'In all well organised schools good discipline can be maintained without corporal punishment.'

Some signs of bad reasoning.—It is true that in reasoning we never, or very rarely, reduce our thoughts to these long processes, and some minds pass more quickly from one step to another; but it has often been found very useful to have some tests or cautions as to unsound conclusions, which we know to be untrue, and yet whose untruth we find it hard to prove.

1. Unfounded assumptions.—We all do wisely to place a just confidence in our teachers, if they ask us to believe a statement because the proof would take too long; indeed, in all lessons, unless they are very carefully prepared and made to rest on conclusions which have been already proved, a teacher can only prevent digressions by appealing to the children's faith in his statements. But others may employ words introductory to their statements, of which you may wisely beware: 'It is evident that, etc.' 'It is certain that, etc.' 'It is generally allowed that, etc.' This is one of the most frequent tricks in geometrical exercises or in essays on moral subjects; every examiner is prepared to find that some disingenuous student has slurred over the critical part of the reasoning by a phrase, 'It follows that, etc.;' 'It is manifest that, etc.,' when the grounds were altogether insufficient for his conclusions. Impress upon your scholars the folly and untruthfulness of such evasions; the chief *educational* purpose of arithmetic and Euclid, apart from their practical use, consists in the demands made upon our intellect for clear reasoning, and upon our moral sense for truthful communication of our thoughts. We may notice the offence of *anonymous* newspaper writers in this respect, and their ex-

ample is the more dangerous because their words carry with them the weight of the whole body of writers for that journal. Proverbs, again, should be received with very great caution; they were probably true in the very limited sense given by the originator of the saying, but it would be wrong to give them a wider application. Such proverbs as 'Knowledge is power' are of very doubtful general application.

2. Similes or metaphors are not sound argument. They are very closely allied, and should be employed to give strength and light to a point already proved, or to any of our statements by a process which we may call 'picturing out' or word-painting; they serve to bring ideas more distinctly before us by giving them, as it were, a visible shape and colour. These and other 'figures of speech' are among the chief ornaments of language; but they stand outside all deductions of reason, and cannot be admitted in fair argument. A strong confirmation of this is furnished by the language of children or uneducated people, but especially by the older languages of the world. Eastern languages and, as you know, the language of our Old Testament abound in imaginative similes and metaphors, which are the arguments of an unlettered people. We should refrain from applying such metaphors too literally, as if all the qualities of the metaphorical object could be transferred to the real subject of thought. Do not, however, confound with this illustration by metaphor, true reasoning from analogies or real likenesses of objects in some of their qualities. But even in reasoning from real similarities, we should be wrong if we trusted to one or two resemblances of a few objects; we require either a few resemblances of a great many objects, or a great many resemblances of a few objects, before we can reasonably conclude that a general law may be inferred.

We notice other faults affecting the form of reasoning. A passionate person will often use words unfairly; an impatient *person* will say, 'Don't you see' something, which he does *not see clearly himself;* a weak person will often fall back

on the authority of others, 'Mr. So-and-So said it.' But we suppose that you are not passionate, prejudiced, or impatient, and that you propose to use your words truthfully and fairly.

Do not use the same word in two meanings during the same argument.—One of the chief reasons for the clear definitions at the beginning of mathematical books, or of any books claiming to be exact, is the prevention of any ambiguous use of words. We notice one very common trick in geometrical exercises: a slovenly thinker has proved a proposition to be true of a particular case (say), of an equilateral triangle; he wilfully or carelessly leaves out of sight part of the word, and assumes the proposition to be true of all triangles.

As you grow older, you will find how much ignorance in religious matters depends upon the double meaning of such words as 'faith,' 'church,' etc. Have a clear idea of the meaning you intend to use, and keep to that meaning throughout your reasoning.

'Begging the question' is another common fault. An experienced examiner will turn at once to dangerous points in certain propositions of Euclid, and expect to find that unwarranted assumptions have been made. In the construction of the 48th proposition of the first book of Euclid, many candidates will produce a side of the original triangle, and 'beg the question' that this side produced is at right angles to the other side, assuming in the course of the proof the very point that is the conclusion of the whole argument. The assumption is perfectly true, but entirely unwarranted by previous statements.

We have not space to point out to you all the varieties of false reasoning; we mention two that are more frequently employed than others, viz.: 'reasoning in a circle' and 'assuming the converse of all propositions to be true.' The *first of these* consists in assuming a principle, following a

train of correct reasoning, and drawing for a conclusion the same statement which was assumed for a principle. We have an instance of this in the 48th proposition, as shown above: the proposition returns to the very point that was tacitly assumed in the false construction. We may often see in moral essays that the conclusion of the whole has formed part of the argument. We should not confound with false 'reasoning in a circle,' the method called 'reductio ad absurdum' in Euclid, by which it is shown that every assumption but one must lead to an absurd conclusion, and that the single assumption which has not been made must necessarily be true.

Again, the converse of a proposition may in some cases be true, as in the case of a proposition in Euclid and its converse which are repeatedly placed together. Experience will be your best guide in deciding whether you may safely infer the truth of a converse proposition.

We collect into a few rules the principal points stated in this chapter.

1. Learn as thoroughly as you can the primary meaning and each derivative meaning of the words you employ.

2. Verify for yourself by experiment, or by actual testimony, if you can, the facts you state.

3. Do not apply general principles to any set of facts, until you have tested their application to other statements, and have drawn conclusions which you know to be true.

CHAPTER IV.

HOW TO TEACH CHILDREN TO USE THEIR WORDS.

THE natural order traced in the preceding chapters by which children conceive the full meaning of words, combine them into short statements, and compare wider and narrower statements for the purpose of reasoning, should be the teacher's guide. Younger infants may be expected to give answers in single words, expressing either the members of a class or the name of a class when the attributes are given, or the names of the qualities when the class is given. Older infants may form short simple statements. The lower classes of the upper school may attempt continuous but broken narrative in a series of short simple sentences, and may deduce a conclusion when the premises are given, or *vice versa*; the upper classes may attempt connected narrative, and may be required to give an argument in full, both premises and conclusion. Bearing in mind these four steps of the growth of a child's reasoning powers, we proceed to consider how they are influenced by

(*a*) Your own example in speaking.
(*b*) Your writing before the class.
(*c*) The questions you ask.
(*d*) The exercises you set in composition.

The teacher's stock of words.—All eager teachers complain, that most of the work done at school is undone at home, and especially that children employ different styles

of speaking and different sets of words to their teachers and to their home companions. We do not allude to mere local provincialisms affecting purity of vowel sounds, or racy local words handed down through many generations. A cultivated Yorkshireman knows that there is nothing *vulgar* in a child's question, 'Whar's ta barn?' The child is asking in the language and grammar of its forefathers, Where are you bound for? or Where are you going? No Scotchman would call the dialect of Scott's heroines vulgar. But a teacher can help largely in the substitution of refined and correct words for coarse and unmeaning words, and in combating that indistinct utterance which betokens incorrect thought; he can choose his own words carefully, and can deliver them clearly. No teacher can effect this without extended reading of a high class of books; as he reads himself, so will he in a great measure speak; and as he speaks, so will his scholars also speak.

Writing before the class.—Notes of lessons well written on the black-board assist the memory of children in retaining both correct words and the sequence of thoughts. A bold well-shaped character of writing demands from the class corresponding boldness and clearness of ideas. Good black-board notes may be made excellent patterns of good language for a class; they will see clear distinctions of synonyms, and will observe the difference of meaning of scientific terms often confounded, as 'oblong' and 'square,' 'fluid' and 'liquid,' 'hard' and 'rigid,' etc.; they will gather a large stock of homely words, when the illustrations are drawn from nature, and not borrowed from text-books; they will have models of clear statements, made in short grammatical sentences; they will see steps of reasoning leading inevitably to a clear, well-drawn conclusion. Any teacher, who is not a fluent speaker, should avail himself *largely of the black*-board; he should avoid especially *broken or ungrammatical* sentences, and should express

himself concisely, without superfluous verbiage. We dislike particularly to hear a question put in the following elliptical, inverted, ungrammatical form : 'From London to York is—how far?' It would have been quite as easy to say, 'How far is it from London to York?'

What constitutes a hard word?—The difficulty does not consist in the length of the word. Infants are easily reconciled to the length of the names 'hippopotamus' and 'dromedary' by a good picture; 'microphone' and 'aquarium' have become household words to older children; a sailor rejoices in a long name for his ship, Ariadne or Melpomene; jockeys find no difficulty in Gladiateur or Emilius. A vivid picture or a pleasant association recommends a long word, as the hearer of a sermon is said to have been gratified by the frequent introduction of the blessed word 'Mesopotamia.' If a country child see a smith hammer out a horse's shoe, he will not object to the word 'malleable'; a class that has seen a clear picture of a steep rocky cape can appreciate the word 'promontory.' Illustrate the longest word by suitable pictures or examples, if you wish to impress it on the memory of a class.

Judicious questioning.—We have spoken of two of the principal methods by which a teacher may present models of good language for the imitation of his class. But as a considerable part of his instruction is given orally, and continuous lecturing should be avoided with young children, judicious questioning becomes a powerful instrument in his hands. If the questions are suited to the mental capacities of the children, he may reasonably expect correct answers. Our mental states in regard to any subject of knowledge have been divided into the three following : complete ignorance, which discerns no difficulties; imperfect knowledge, which finds them out and struggles with them; *perfect knowledge*, which overcomes them. These three

states of knowledge correspond to the three stages of reasoning both in infants and older children: you will be compelled to supply the correct vocabulary in the first stage, to elicit short statements in the second, and to watch the developements of complete reasoning in the third. We observe all three stages combined in lessons on subjects unfamiliar to older children. If you were to give them a lesson on the common pump, complete ignorance would take as much interest in the casing as in the machine; the casing must be removed, and the essential parts exhibited, with their correct names. The class will then feel the painful void of ignorance, and will gladly accept your help in making statements as to experiments that you have exhibited in order to show that the water is compelled to rise by the external pressure of the air, and in deducing the general principles of the elasticity and pressure of the air. When they have mastered these general principles, you may require them to give full steps of reasoning to test their truth by the following questions: Why will not a pump work at times till water is poured into the barrel? why does not mercury rise as high as water under pressure of the air? etc.

Questions that require the correct use of terms.—You will perhaps have heard something of the great cross-examiner, Socrates, who spent his life in showing that much of the apparent knowledge of the teachers of his own day was only wordy ignorance. He found them employing words that they had never thoroughly grasped, and set about questioning every one that would listen and answer, declaring that his chief object was to make his hearers feel their own ignorance of the terms they employed. Though we are not concerned with the exposure of wordy ignorance, but with a class of eager children, the method of requiring *clear and correct* names before we demand full statements *should be always* pursued.

Questions that can be answered by a single name.—We say advisedly a *name* or a mark of some idea in the children's mind, not a bare 'yes' or 'no.' You may deal with facts which you make known to the class in two ways, either by broken questions or by elliptical statements. If you are giving a lesson on a tiger, and have shown by comparison of the cat and tiger that a tiger is an animal of the cat kind, you may have the statement repeated by the class to prove to your satisfaction that they have a distinct conception. You may then employ a broken catechism: To what kind of animals does the tiger belong? What animal of the cat kind have I named? Avoid the ambiguous and vague question, What animal is an animal of the cat kind?

Or you may employ elliptical statements in a questioning tone, supplying the whole with the exception of one significant name. 'Horses, sheep, and deer have four feet and are called———?' 'The tiger is an animal of the———?' Simultaneous elliptical answering will often encourage timid and backward children; but take care that the word omitted be essential to the meaning of the statement, and require always a whole word. The object of elliptical questioning is quite defeated by any question that does not require the presence of an independent clear idea in a child's mind; such a statement put interrogatively as 'Iron is a min—?' appeals only to the ear, and can be answered without intelligent effort.

Questions that require a complete statement.—When a child has acquired the materials for forming a complete sentence, elliptical or broken questions serve no purpose except to stimulate a timid or a flagging class. The simplest form of higher questions would be to require the statement of some fact which the class had witnessed, or, if you have been comparing several facts, of the general principle to be deduced. In your lesson on the pump you would have a

model, and would require the class to state what they saw taking place when the handle was raised. In a lesson on simple proportion you might place several sets of equal ratios on the black-board, and after multiplying the extremes and means of each proportion might fairly expect the class to make the following statement for themselves: 'In any simple proportion the product of the extremes is equal to the product of the means.' Such statements made by a class are especially valuable, both for the intelligent effort required and the correct knowledge of terms.

In this stage of questioning it is necessary that you should have the full reasoning in your own mind; that one part should be fully stated, and the class required to name the other. You give the 'because' and ask for the 'therefore,' or *vice versa*. In a lesson on gravitation, you might ask, 'Why does a stone fall to the ground?' You have stated the effect and require the cause, or you might give the cause by stating the general law of gravitation, and require the effect produced upon a cricket-ball and a cannon-ball let fall from the top of a tower. It will no doubt often happen, that the children answer absurdly, or are puzzled by the question: do not call them stupid, but try back and ascertain their knowledge of the terms, and especially whether your question was not faulty in some of the ways we shall presently suggest.

Questions requiring the whole of the reasoning—both the 'because' and the 'therefore' to be fully stated. If gravitation be the subject, a class might be expected to answer fully the question, 'State the effect of gravitation upon a cannon-ball falling from the top of a tower,' that is, to give both the general principle of gravitation and the effect upon the cannon-ball.

These three stages of questioning follow the natural process of the growth of a child's thought. Even in the highest classes *of a school, elliptical* and simultaneous answering may be occa-

sionally beneficial. Such exceptional circumstances as a less interesting lesson in the presence of one or two backward children may justify their use; but individual questioning, graduated to the developed capacity of a child, furnishes the teacher with an admirable instrument both for promoting the intelligence and improving the language of the scholar.

Other forms of questioning.—Recapitulatory exercises at the close of a lesson are very desirable for the purpose of drawing the parts of a lesson closer into a compact whole, for impressing the correct terms on the memory, and for testing the additional acquirement of knowledge expressed in fluent language; but the teacher should be careful not to give additional facts, and to confine himself strictly within the limits of the lesson. We have said nothing of mere memoriter questioning, or calling for a repetition of the names of rivers, dates, classes of adverbs, tables, which have been learned in home lessons; all the command of language, that they furnish, is limited to the knowledge of the terms employed, and for these reasons it is desirable that the instrumental terms should be committed to memory at an early stage of school life, before they struggle for existence with a higher language connected with happier efforts of thought.

Faulty questions.—Questions that produce loose answers, and do not require any clear discrimination of words, should be avoided. If a question can be answered by a bare 'yes' or 'no,' there may be apparently a selection of ideas, but probably a guessing habit will be formed which is destructive of clear and concise language. If you ask questions of this kind, always require full reasons to be given afterwards.

Questions that require a mere echo of some statement just made by the teacher, are likewise destructive of clear perception of the meaning of the words employed. The same evil attends all tasks committed to memory, if not intelligently prepared; a slovenly preparation for a repetition

lesson of poetry familiarises the mind with a careless habit of using words that are partly or altogether misunderstood.

Leading questions, or questions that suggest their own answers, require no effort of discrimination, and the scholar gives without reflection the suggested answer in words that will please his teacher.

Vague, or ambiguous, or indefinite, or unfair questions suggest equally slovenly answers. If a teacher were to ask what took place before the flight of James the Second, he might be answered by the account of any of James's unconstitutional proceedings. It would be unfair to turn round and ask a class to spell Kamschatka, unless they had seen it spelled before.

You should put questions that require a selection by the mind of a child (1) of clear ideas, (2) of clear and concise language, and you should see that the answers are expressed (if the age of the child permits) in a full grammatical sentence. But you must be patient with answers that are imperfect both in form and in the idea. If they are imperfect in form or incorrect grammatically, the other members of the class will correct them; if the ideas are nearly correct, disentangle the truth from the error; but do not be led into digressions by discussion of answers that are in great measure incorrect. Do not require an answer in any particular formula of words; homely words familiar to the children will represent their ideas most forcibly.

Composition considered as an exercise in language.—No child should attempt original composition unless he has acquired a sufficient stock of words suitable to the subject, and unless the subject itself is fairly suitable to his age. Essays on abstract subjects are altogether unapproachable by ordinary scholars, though they may, with *little difficulty, write* a good letter or reproduce in their *own words the* substance of a tale of adventure, or of a

short story. Paraphrasing or reproducing a passage of poetry in their own language is impossible, if the passage is involved and difficult; if the passage is easy and simple, the poet will have chosen the best words in the shortest form, and his language could only be changed for the worse. We do not advise the writing out of oral lessons from the abstract given on the black-board, unless the subject of the lesson has been some common topic, such as dew, rain, or some process of manufacture; technical lessons in grammar and geography should not be reproduced.

The best preparation for composition is a careful selection of the pieces set for transcription. Short clear sentences, containing only a few words, are most readily apprehended as a whole. The teacher may next require similar sentences on a familiar subject, discouraging all connective words, such as 'and so,' 'but then.' In letter writing the scholar should be directed to proceed at once to the topics he selects, avoiding all commonplaces; he should be crippled by no forms except the ordinary forms of beginning and ending. Such exercises are infinitely more useful than dictation exercises; they exhibit more plainly the ordinary mistakes in spelling and composition, and demand an effort to express the subject in correct words and with clear arrangement.

CHAPTER V.

SOME HINTS ON ENGLISH WORDS.

EVERY language has as distinct a *history* as a man, a state, or a nation.

There are two ways of tracing the history of our English language — 1. By *comparing* its words with those of the other languages with which it is said to be connected, and noting the *brotherhood* which exists between them (and it is interesting to discover with how many chief groups this can be proved to be the case); 2. By tracing the language by means of its *literature*, or the works written in it at different periods.

E.g.—1. *haus*, Germ.; *house*, English.

We have in our literature a very large number of printed works, besides those written in manuscript, dating as far back as the time of Alfred the Great. Floating through this stream of history, we can trace words which have, as it were, been rounded by friction in the long journey they have made, or have assimilated fragments of the débris through which they have passed—words which have been stripped of their inflections, or have assumed a complicated and foreign shape.

But as this stream of *word-history* floated on, it brought with it waifs from the bank of every country through which it passed. For example, the English language, as we now speak and write it, considered as a *word-stream* (and this expression is used only as a practical help in the way of a *picturing out of the* subject), has brought down with it to our *own time*—

Celtic words, of which the various known forms seem now to be confined to Gaelic, whose head seat is in Ireland; and the Cymric, whose head seat is in Wales. Subordinate varieties of the Irish are to be found in the Gaelic of the North of Scotland (often called Erse or Ersh-Irish), and the Manx, or Isle of Man tongue. Other Cymric dialects are the Cornish (now extinct as a spoken language), and the Armorican, or that still spoken in some parts of Bretagne.

Scandinavian words, from the time when the Danes invaded the island.

And, *thirdly*, Roman words, filtered, for us, through Norman-French, which came into use after 1066, that is, when the full channel of the Anglo-Saxon stream was invaded by the Norman-French supply, itself the outcome of the tributary from the Roman source.

These historical facts have given rise to the well-known assertion that 'English is a composite language,' and we shall see in the next paragraph how far this is the case.

ENGLISH A COMPOSITE LANGUAGE.

The English language, as we speak and write it, is composed of contributions from the Celtic, Latin, Saxon, Danish, Norman. Besides these, a large number of words have slipped in, with the requirements of new associations, inventions, and events, from the (*a*) Hebrew, (*b*) Italian, (*c*) Spanish, (*d*) American, and (*e*) Arabic.

Of these latter a few examples may be given here :—

(*a*) Belonging, as might be supposed, entirely to religious matters; e.g. 'Amen,' 'cherub,' 'ephod,' 'hallelujah,' 'hosanna,' 'jubilee,' 'seraph,' 'sabbath,' 'manna.'

(*b*) 'Balcony,' 'bust,' 'caricature,' 'cupola,' 'ditto' (that which has been *said*; Lat. *dictum*), 'gazette,' 'opera,' 'regatta,' 'umbrella,' 'volcano,' etc.

(*c*) 'Armada,' 'barricade,' 'cargo,' 'cigar,' 'creole,' '*grandee*,' 'mosquito,' 'mulatto,' 'negro,' etc.

(*d*) Amongst words of the New World are:—'Chocolate,' 'cocoa,' 'condor,' 'squaw,' 'potato,' 'tobacco,' 'wigwam.' To these may be added a number of more or less *slang* or vulgarised words introduced by the dialect which is called *Yankee.*

(*e*) The Arabic contributes a greater proportion of words to our language, and they are, as might be expected, of a scientific character, for the Arabs were the chemists, astronomers, and arithmeticians of the Middle Ages. E.g.: 'Algebra,' 'almanac,' 'cypher,' 'zenith,' 'zero,' 'alcohol,' 'alkali,' 'elixir.' The Arabs were also the early merchants who traded with Western Europe; hence they gave us 'Amber,' 'artichoke,' 'coffee,' 'cotton,' 'lemon,' 'mattress,' 'sherbet,' 'sofa,' 'sugar,' 'syrup;' and others which tell of a less peaceful state of things, such as 'Assassin,' 'barbarian,' 'emir,' 'magazine,' 'mameluke,' 'sirocco,' etc. Besides these we have a few Persian, Turkish, and Hindostanee words:—'Caravan,' 'orange,' 'turban,' 'tulip,' 'sash,' 'calico,' 'chintz,' 'punch,' 'toddy.'

But, as we shall see hereafter, the stream of words left on the bank of society those which the condition and wants of the time required. Language has been expanded and contracted in precise proportion to the circumstances and needs of those who want it. Hence, as our material condition varies, as our ways of life, our institutions, private and public, become other than they have been, all is necessarily reflected in our language.

'In these days of railroads, steamboats, and telegraphs, of sun-pictures, chemistry, and geology, of improved wearing apparel, furniture, styles of building, articles of food and luxury of every description, how many words and phrases are in everyone's mouth which would be utterly unintelligible to the most learned man of a century ago, were he to rise from his grave, and walk our streets!'

But the most important result of the *analysis* of our lan*guage is the apparent* fact of the large proportion of Anglo-

Saxon words in it, and the significant place which they hold in the phenomena of industrial life. Archbishop Trench conducts the analysis in the following simple manner: 'Suppose the English language to be divided into a hundred different parts: of these, to make a rough distribution, sixty would be Saxon; thirty would be Latin (including of course the Latin which has come to us through the French); five would be Greek. We should thus have assigned ninety-five parts, leaving the other five, perhaps too large a residue, to be divided among all the other languages from which we have adopted isolated words.' In illustration of this assertion he adduces the instances of the Lord's Prayer, and the first three verses of the 23rd Psalm. The former consists of sixty words, six of which alone are of other than Saxon origin. The latter contains forty-five words, three of which only are not Anglo-Saxon.

The same result may be seen upon the examination of Exodus xii.; Ruth i. 16–18; 'Robinson Crusoe,' 'John Gilpin,' Hamlet's address to the players, and other pieces written in pure Saxon English.

We must bear in mind, however, that this great proportion of the Saxon element in our language is not made up so much of Saxon *words* as of Saxon *inflections* or changes in the forms of words. English grammar is almost entirely Anglo-Saxon. Thus the possessive case, the general modes of forming the plural of nouns, and the terminations *er*, *est*, by which we express the comparative and superlative of adjectives; the inflections of the pronouns, of the tenses, persons, and participles of verbs, and the most frequent termination of our adverbs (*ly*), are all Anglo-Saxon.*

* To demonstrate the fact that the Anglo-Saxon part of our language is that which commends itself most strongly and most naturally to the minds of the young, we have only to read aloud to any fairly advanced boys (say 5th or 6th Standard) in an elementary school such passages as the following, and see how astonishment changes into almost merriment during the reading of the first; while instant appre-

Misused Words.—We may suggest a few of the most obvious of these misused words, principally as examples :—

Lie and *lay*.—These words are very often misused, even by educated persons. The rule to remember, in order to employ them correctly, is that *lay* involves transitive action, and *lie* involves rest. The fault of misusing the latter for the former is less frequent than that of using the former for the latter. Thus, many persons will say, 'I was *laying* down for a nap;' but very few will say, 'I was *lying* down my slate upon the desk,' or 'He was *lying* down the law.' Our 'mother tongue,' from our earliest experience, might have prevented the confusion of these two verbs, for almost every one of us heard them rightly used while we *lay* on our

ciation of the second passage warms them into increasing and genial interest.

(1) 'If under changing conditions of life organic beings present individual differences in all parts of their structure, and this cannot be disputed; if there be, owing to the high geometrical ratio of increase of each species, a severe struggle for life at some age, season, or year, and this certainly cannot be disputed: then, considering the infinite complexity of the relation of all organic beings to each other and to their conditions of life, causing an infinite diversity in structure, constitution, and habits to be disadvantageous to them, it would be a most extraordinary fact if no variations ever occurred useful to each being's own welfare.'—*Darwin's 'Origin of Species.'*

(2) 'This morning he had been told by some of his neighbours that it was New Year's Eve, and that he must sit up and hear the old year rung out and the new year rung in, because it was good luck, and might bring his money back again. This was only a friendly way of jesting with the half-crazy oddities of a miser; but it had perhaps helped to throw Silas into a more than usually excited state. Since the on-coming of twilight he had opened his door again and again, though only to shut it immediately at seeing all distance veiled by the falling snow.'—*Silas Marner.*

It is true that the first passage is selected from a volume which, treating a scientific subject, must do so in technical language; while the second is simply a narrative, and can find scope for words of the simplest and most Saxon kind. But the result shows the vitality of the Saxon element in our everyday speech—that the crust which binds the *dough* together is Saxon—the outcome of the same determination which *served to turn Roman influence*, and with it Roman speech, back to its *own soil.*

mother's knee, and until we outgrew the sweet privilege of *lying* in the twilight, when bed-time had come, and hearing her voice lulling us to sleep—

Hush, my babe, *lie* still and slumber,
Now I *lay* me down to sleep.

One reason for this confusion may have arisen from the fact that the preterite of *lie* is *lay*, e.g.—

In the slumbers of midnight the sailor boy *lay*;

and that this expression of the most perfect rest is identical in sound with the expression of the most violent action, e.g., Shakespeare's 'Macbeth'—

. . . *Lay* on, Macduff;
And damned be he who first cries, 'Hold! enough.'

If we keep in mind the distinction that *lay* expresses transitive action, and *lie* rest, confusion will be for the most part prevented.

E.g.—

I *lay* myself upon the bed (action).
I *lie* upon the bed (rest).
I *laid* myself upon the bed (action).
I *lay* upon the bed (rest).
I have *laid* myself upon the bed (action).
I *lay* upon the bed (rest).
A hen *lays* an egg (action).
A ship *lies* at the wharf (rest).
The murdered Lincoln *lay* in state (rest).
The people *laid* the crime upon the rebels (action).

To fully understand how many different significations this word can bear, we may adduce its different meanings in Shakespeare alone, and give an example illustrative of each:—

(*a*) = to place along, to make to lie.

. . . *laid* by his side his brand.—Sonnets.

Reflexive = to lie down.

I *lay* me down to breathe.—*Henry VI.*

(*b*) = to beat down, to turn upside down, to prostrate.

. . . *lay* this Angiers even with the ground.—*King John.*

(*c*) = to cause to sink, to prevent from rising.

Where are my tears? Rain, to *lay* this wind.—*Troilus and Cressida.*

(*d*) = to spread, or set in order.

Have you *laid* fair the bed?—2 *Henry VI.* iii. 2. 11.

(*e*) = to put in confinement.

They have *laid* me here in hideous darkness.—*Twelfth Night.*

(*f*) =to place, to put in general.

Roses that on lawn we *lay*.—*Lucrece.*

He *laid* his wreathed arms athwart his bosom.—*Love's Labour's Lost.*

Like, as.—The similarity and yet difference of these two little words often give rise to obscurity in the writings of even the most thoroughly educated. A sentence in a London newspaper remonstrating against gas-stokers being compelled to work twelve hours a day before red-hot stoves, runs thus: 'The directors could fill their places in three hours from the docks alone; but that does not give them a right to use up Englishmen *like* Cuban planters.' Of course the writer meant to say that the directors had no right to use up Englishmen as Cuban planters use up negroes. The obscurity of his expression arose from the misunderstanding of the distinction between *like* and *as*. So in ordinary language it is common to hear such expressions as 'He don't like to do it *as* you do.' *Like* and *as* both express similarity, but the former compares *things*, the latter *action* or *existence*. 'John is like James,' and 'John is such a man as James is,' are correct expressions. We may say A.'s speech is *like* B.'s; *or A. speaks as B.* does; but it would be incorrect to say *that A.'s speech is as* B.'s is; or, A. speaks *like* B. does.

One good rule on this question is, that *when* as *is correctly used, a verb is expressed or understood*—e.g., 'One man is as good as another,' i.e., as another *is*. *With* like *a verb is unnecessary*—e.g., 'He does his work like a man,' not 'like a man does.'

The above examples may show how words generally supposed to be *synonymous*, i.e., having the same meaning, and conveying the same idea, may in reality alter the true and close sense of a passage, and affect the clearness and terseness of style.

Roots of words.—*Roots!* What a significant *word* is this! First, the root, then the stalk, then the blade, then the green ear in the blade. So it is with words. We have seen that we cannot invent words, but we can trace them to their earliest beginnings—'to something seen or felt or heard, some impression upon one of our senses' (p. 6). Words grow from their roots as the tillage and sunshine and dew of advancing intelligence and civilisation force them up. You would find few subjects of instruction which you are called upon to give your class more amusingly interesting to them, if given intelligently and freshly, and from your own knowledge, *with no book in your hand*, than the derivation of common every-day words.

Try a few of the following, and see if we are not right. You know probably the derivation of the names of the days of the week. We will give you for illustration the names of some other times and seasons. The Saxons called what corresponds to our month of March *Lent-monat*, or length-month, because the days begin to *lengthen* about that time of the year, and hence our *Lent* generally falls about that time.* Again, as our Saxon fathers counted time not by days but by nights, we get the somewhat unfamiliar word *se'n-night* or a week, and *fortnight* or *fourteen-nights*. So

* Our word *March* is of Norman origin, borrowed from Mars, the god of war.

the names of the common trades or 'handicrafts.' *Smith* is one that *smiteth* on the anvil; the *tailor*, a name left on the bank by the French stream, was called a *synder*, a cutter (from a Saxon verb *asyndrian*, to separate). *Grocer* grew up from the fact of his selling tea, sugar, etc., by the *gross*; *huckster*, one who sold small wares, and carried them on his *back*; *milliner*, so called because the Milanese were the first milliners, deriving their name from the sale of a particular dress, first worn at Milan in Italy. So, *mantua-makers*, who in like manner introduced a new dress in Mantua; *cordwainers*, who made shoes, etc., out of Cordova leather; *ostlers*, written at first 'hostelers,' originally the *hosts* in inns who entertained the guests, but now degenerated into the guardians of the horses of travellers instead of their riders. The *butler* was at first merely the man who *bottled* the wine, and so on.

If you adopt this system of digging up the roots of words on purpose to give your scholars a new and fresher view of the forms of speech and terms which their mother-tongue has provided, you will find an ever-increasing subject of interest to yourself, and one which will relieve your deeper subjects of teaching, and give general enjoyment to your class. Every reading lesson will be rendered more valuable and far more interesting by an explanation of words such as I have tried to give examples of, and which shall not be mere dictionary equivalents. I subjoin a list of words which would probably occur in your reading books, and the meaning of which you could for yourselves find out, or *think out*; and this latter process takes less time than you might think, if you give your mind and imagination free play, and accustom yourselves to exercise independent thought, and not to trust to books for everything.

I. From Saxon roots:—

Acre, from æcer, a piece of unploughed land, without *any reference to extent* or measurement.

Addled egg, from *aidlan*, to be useless, bad. Hence we have *idle* and *ill.*

Ale, from *ælan*, to burn, to inflame.

Broth, i.e. *briweth*, from *briwan*, to cook.

Bit (of a bridle), from *bætan*, to restrain, or, as some say, from the verb to *bite.*

Bough of a tree, that which is *bendable*, from *bygan*, to bend; and from this we have a suggestive instance of a word used in many different senses—*bow*, viz. the bowing of the head in reverence; the weapon of war that did 'yeoman's service' in the early times of English history; the bow of a fiddle; the bow on a lady's head or bosom; the front of a saddle, and of a ship, a rainbow; and, last of all, bowed or bended legs. (Try to draw out the ingenuity and good-humour of your class with another word in the English language of the same capacity—*box.*)

Candle, that which *kindles.*

Dole, that which is *dealt* out.

Don and *doff*, that which we do on and do off.

Forlorn, the past participle of an obsolete verb, *forlore*, which signified to lose or abandon. Those who volunteer in time of war in a service of extreme danger, where their lives may probably be sacrificed, are called even now 'a *forlorn* hope.'

Gospel, which all your children know or ought to know, means the 'good news' from Heaven, from *good* and *spell*, Saxon for a story or tale, as *leas-spell* meant a false tale or fiction (see Psalm iv. 2).

Gooseberry, probably a corruption of *gorse-berry*, from the prickly nature of the bush on which it grows; and so on.

II. Words from the Latin.—These belong to two periods. The words of the first period date from the conversion of England to Christianity, about A.D. 596; and this

period furnishes such traces as exist chiefly in the names of places and camps or settlements.

Chester, from *castra*, meaning a camp.

Lincoln, from *colonia*, a colony.

Portsmouth, from *portus*, a harbour.

Pontefract, from *pons*, a bridge.

These words have had no influence on our 'mother tongue' itself.

But Latin words came to us more indirectly through the Norman-French after 1066. Norman customs and Norman language thenceforth overrode English people and English habits. The Conqueror not only began immediately to change the people's allegiance, but he tried to change, so to speak, their character, and the first step he took in this transformation was the wise one of changing their language, so great an engine did he or his counsellors know 'words' or speech to be in modifying the character, moral and political, of a nation. The new tongue first showed itself in the law courts; hence so many of our legal terms are of Norman-French origin. Next it obtruded itself into the Court; then the schools for the young took it up. Boys construed their Latin lessons, not into English, but into Norman-French. From this time it became *fashion*, or, as they would have said themselves, *de rigueur*, to speak the new tongue. People of low origin learned Norman-French to raise their position, as they thought, in society. This craze, however, did not last long. A reaction came in the reign of Edward the Third, when an Act of Parliament actually decreed that pleadings in the law courts should again be conducted in English, stating as the reason for such a rule that Norman-French had fallen, to a wonderful extent, into disuse in England. The Latin element, therefore, comes to us either *directly* or *indirectly*. That introduced by the Norman-French comes *indirectly*, and has in very many instances undergone great *change in spelling*. A few examples taken from Dr. Morris's '*Historical Outlines* of English Accidence' will illustrate *what we have said.*

Latin.	Latin, second modification.	Norman-French.
Balsamum	balsam	balm
Captivus	captive	caitiff
Factio	faction	fashion
Lectio	lection	lesson
Pœnitentia	penitence	penance
Quietus	quiet	coy
Securus	secure	sure
Tractus	tract	trait

Compare, too, 'ancestor' and 'antecessor'; 'orison' and 'oration'; 'loyal' and 'legal'; 'royal' and 'regal,' &c.

A few words from the Greek have suffered similar change, as 'blame' (cf. blaspheme), 'phantom' (cf. fantasm), 'story' (cf. history).

Hence you will see the great value of the use of the study of *roots* in your lessons on words. They will assist you in interesting as well as instructing your children; and as a knowledge of botany among the school children in country districts deepens the pleasure of their walks to and from school, by teaching them to look for new flowers, and illustrates the truth of that wise and well-known chapter of 'Eyes and no Eyes,' so the opening up to your boys or girls of the wonders and pleasures of tracing the *roots* in philology—the germs whence the words, in which they chatter to each other, spring—will be a source of real and useful enjoyment. And one advantage which the latter study has over the former is, that it lies open equally to the 'Town and the Country Mouse.' The boy or girl who has no experience of daisies and heather, and stream and forest, and of the joyous *uncaged* song of the lark or the linnet, can happily find material for his or her study of *roots* in towns over the shop doors and in the cries of the streets.

Big words for small thoughts.—This is a very useful phrase to impress upon your class the attention to what is called *style*. Style is the mode of expressing thought in *language*, whether oral or written. A good style consists in

the best choice of *words* and their careful arrangement, with a view to the easiest and fullest understanding by others of what you mean to express. And do not think that this belongs to a higher order of instruction than you suppose yourself called upon to give. The chief reason why the composition exercises in the upper standards of schools, and for that matter, in the papers of pupil-teachers themselves, are generally so unsatisfactory, is, first of all, the difficulty of finding words *at all* to express what the writers may have a perfect knowledge of; and, secondly, the want of a proper choice and arrangement of them when found. If, however, we know and understand a subject, we have seldom much difficulty in imparting that knowledge to others, and so we get rid of the first obstacle. But the real difficulty is to do this *well.* We must try to clothe our thoughts in the simplest language, and use words of common and well-known meaning. Of course, I am speaking of our expression of every-day subjects. On scientific matters, as I have shown above, new and unusual terms must necessarily be used; but ignorance is often hid by high-sounding words, and writers make up in pretence what they lack in reality. A foreign song-writer says on this subject—and you will perhaps remember his truthful remarks all the more if I quote them in rhyme—

Our language, like our daily life,
  Accords the homely and sublime,
And jars with phrases that are rife
  With pedantry of every clime.
For eloquence it clangs like arms,
  For love it touches tender chords;
But he to whom *the world's heart* warms
  Must speak in wholesome, home-bred words.

Béranger, from whom I have here quoted, compares high-sounding phrases to a big bedizened (look up this word) drum-major, and simple language to the little grey-coated Napoleon at Austerlitz. This comparison you might use with great effect to your class. I cannot here enter into

the full discussion of *style*; but I will give you one or two examples of what has been called 'Newspaper English,' or 'penny-a-lining,' which, since I am bound to explain 'words' as much as possible, is derived from the price paid by the newspapers to those who furnish the passages. These will show you what you ought to avoid in every-day writing. In an article upon a murder, a journalist says: 'A policeman went to the residence of the murderer, and there secured the clothes that he wore when he committed the murderous deed;' being found in a tub of water, 'they were so smeared by blood as to incarnadine the water of the tub in which they were deposited.' Perhaps this might have been expressed more simply and correctly thus:—'The policeman went to the home of the murderer, and there found the clothes he wore when he did the murder, which were so bloody that they reddened the water into which they had been thrown.'

We give a few more words offending against a good simple style, which you may increase by observation in the course of your reading:—An upper school is now called *an educational establishment*; a fair lady is *a female possessing considerable personal attractions*; lodgings are now advanced to the dignity of *apartments*; a farmer must be styled *an agriculturist*; people never begin or even commence anything, but it must be *inaugurated* or *initiated.*

The increasing danger to the purity of our language by the introduction of such unmeaning and unnecessary words may be illustrated by the fact that many words which were undoubted *slang* ten years ago, are now more or less allowed: e.g. *snob, sham, humbug.* The shortening of words, however, is not *yet* so recognised: e.g. *incog., exam.*

If the limits of our space had allowed, several other points included in the study and teaching of 'words and their uses' might have been touched upon. Enough, it is hoped, has been said to show that this subject may be made one of instruction and enjoyment to all engaging in it, not

impeding, but helping other subjects more technical and less interesting. It would be desirable, if it were possible, to add a supplementary chapter to No. IV., 'On the Schoolmaster's Use of Words,' as an aid to him in the teaching of Religion, Geography, and History. This province of the subject should be borne in mind by teachers, and if the foregoing pages have been understood and mastered the use of words referred to can be developed and applied by their own intelligence.

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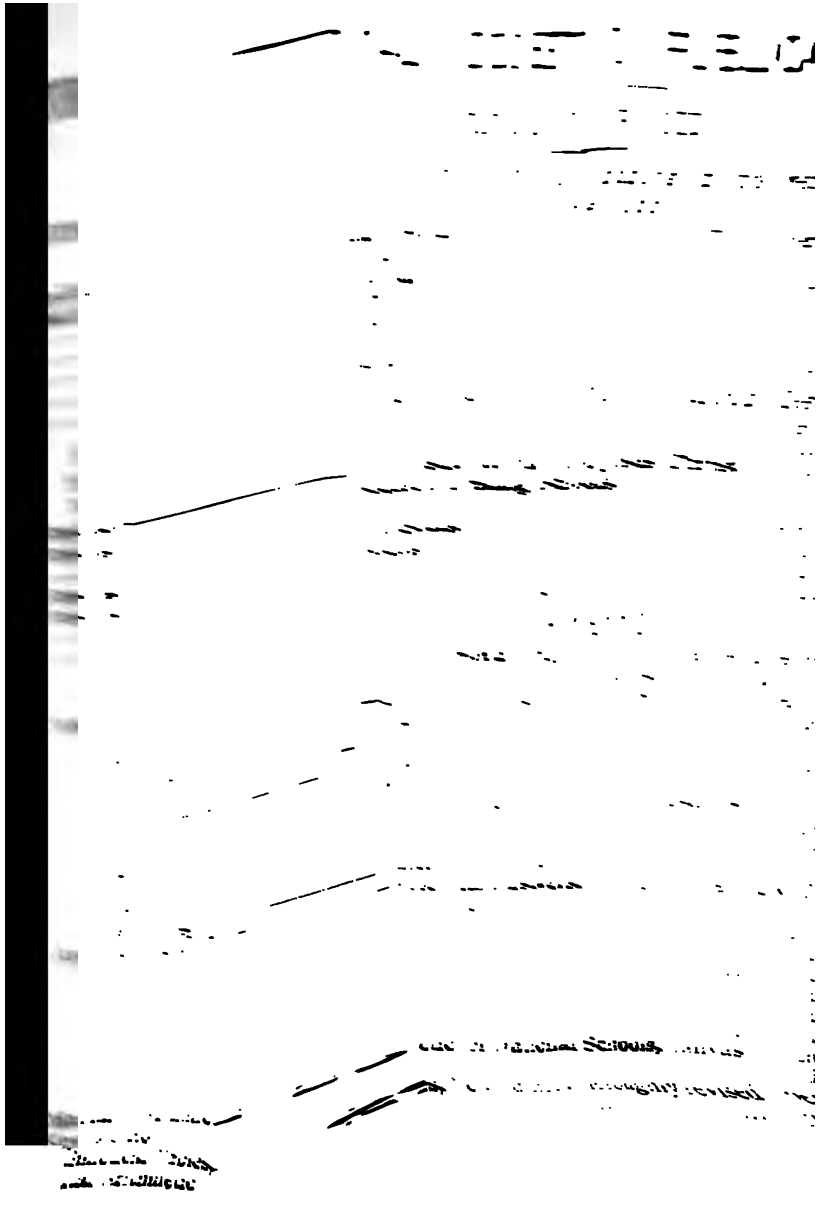

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period furnishes such traces as exist chiefly in the names of places and camps or settlements.

Chester, from *castra*, meaning a camp.

Lincoln, from *colonia*, a colony.

Portsmouth, from *portus*, a harbour.

Pontefract, from *pons*, a bridge.

These words have had no influence on our 'mother tongue' itself.

But Latin words came to us more indirectly through the Norman-French after 1066. Norman customs and Norman language thenceforth overrode English people and English habits. The Conqueror not only began immediately to change the people's allegiance, but he tried to change, so to speak, their character, and the first step he took in this transformation was the wise one of changing their language, so great an engine did he or his counsellors know 'words' or speech to be in modifying the character, moral and political, of a nation. The new tongue first showed itself in the law courts; hence so many of our legal terms are of Norman-French origin. Next it obtruded itself into the Court; then the schools for the young took it up. Boys construed their Latin lessons, not into English, but into Norman-French. From this time it became *fashion*, or, as they would have said themselves, *de rigueur*, to speak the new tongue. People of low origin learned Norman-French to raise their position, as they thought, in society. This craze, however, did not last long. A reaction came in the reign of Edward the Third, when an Act of Parliament actually decreed that pleadings in the law courts should again be conducted in English, stating as the reason for such a rule that Norman-French had fallen, to a wonderful extent, into disuse in England. The Latin element, therefore, comes to us either *directly* or *indirectly*. That introduced by the Norman-French comes *indirectly*, and has in very many instances undergone great *change in spelling*. A few examples taken from Dr. Morris's '*Historical Outlines* of English Accidence' will illustrate *what we have said*.

Latin.	Latin, second modification.	Norman-French.
Balsamum	balsam	balm
Captivus	captive	caitiff
Factio	faction	fashion
Lectio	lection	lesson
Pœnitentia	penitence	penance
Quietus	quiet	coy
Securus	secure	sure
Tractus	tract	trait

Compare, too, 'ancestor' and 'antecessor'; 'orison' and 'oration'; 'loyal' and 'legal'; 'royal' and 'regal,' &c.

A few words from the Greek have suffered similar change, as 'blame' (cf. blaspheme), 'phantom' (cf. fantasm), 'story' (cf. history).

Hence you will see the great value of the use of the study of *roots* in your lessons on words. They will assist you in interesting as well as instructing your children; and as a knowledge of botany among the school children in country districts deepens the pleasure of their walks to and from school, by teaching them to look for new flowers, and illustrates the truth of that wise and well-known chapter of 'Eyes and no Eyes,' so the opening up to your boys or girls of the wonders and pleasures of tracing the *roots* in philology—the germs whence the words, in which they chatter to each other, spring—will be a source of real and useful enjoyment. And one advantage which the latter study has over the former is, that it lies open equally to the 'Town and the Country Mouse.' The boy or girl who has no experience of daisies and heather, and stream and forest, and of the joyous *uncaged* song of the lark or the linnet, can happily find material for his or her study of *roots* in towns over the shop doors and in the cries of the streets.

Big words for small thoughts.—This is a very useful phrase to impress upon your class the attention to what is called *style*. Style is the mode of expressing thought in *language*, whether oral or written. A good style consists in

the best choice of *words* and their careful arrangement, with a view to the easiest and fullest understanding by others of what you mean to express. And do not think that this belongs to a higher order of instruction than you suppose yourself called upon to give. The chief reason why the composition exercises in the upper standards of schools, and for that matter, in the papers of pupil-teachers themselves, are generally so unsatisfactory, is, first of all, the difficulty of finding words *at all* to express what the writers may have a perfect knowledge of; and, secondly, the want of a proper choice and arrangement of them when found. If, however, we know and understand a subject, we have seldom much difficulty in imparting that knowledge to others, and so we get rid of the first obstacle. But the real difficulty is to do this *well*. We must try to clothe our thoughts in the simplest language, and use words of common and well-known meaning. Of course, I am speaking of our expression of every-day subjects. On scientific matters, as I have shown above, new and unusual terms must necessarily be used; but ignorance is often hid by high-sounding words, and writers make up in pretence what they lack in reality. A foreign song-writer says on this subject—and you will perhaps remember his truthful remarks all the more if I quote them in rhyme—

Our language, like our daily life,
  Accords the homely and sublime,
And jars with phrases that are rife
  With pedantry of every clime.
For eloquence it clangs like arms,
  For love it touches tender chords;
But he to whom *the world's heart* warms
  Must speak in wholesome, home-bred words.

Béranger, from whom I have here quoted, compares high-sounding phrases to a big bedizened (look up this word) drum-major, and simple language to the little grey-*coated Napoleon* at Austerlitz. This comparison you might *use with great effect to* your class. I cannot here enter into

the full discussion of *style*; but I will give you one or two examples of what has been called 'Newspaper English,' or 'penny-a-lining,' which, since I am bound to explain 'words' as much as possible, is derived from the price paid by the newspapers to those who furnish the passages. These will show you what you ought to avoid in every-day writing. In an article upon a murder, a journalist says: 'A policeman went to the residence of the murderer, and there secured the clothes that he wore when he committed the murderous deed;' being found in a tub of water, 'they were so smeared by blood as to incarnadine the water of the tub in which they were deposited.' Perhaps this might have been expressed more simply and correctly thus:—'The policeman went to the home of the murderer, and there found the clothes he wore when he did the murder, which were so bloody that they reddened the water into which they had been thrown.'

We give a few more words offending against a good simple style, which you may increase by observation in the course of your reading:—An upper school is now called *an educational establishment*; a fair lady is *a female possessing considerable personal attractions*; lodgings are now advanced to the dignity of *apartments*; a farmer must be styled *an agriculturist*; people never begin or even commence anything, but it must be *inaugurated* or *initiated.*

The increasing danger to the purity of our language by the introduction of such unmeaning and unnecessary words may be illustrated by the fact that many words which were undoubted *slang* ten years ago, are now more or less allowed: e.g. *snob, sham, humbug.* The shortening of words, however, is not *yet* so recognised: e.g. *incog., exam.*

If the limits of our space had allowed, several other points included in the study and teaching of 'words and their uses' might have been touched upon. Enough, it is hoped, has been said to show that this subject may be made one of instruction and enjoyment to all engaging in it, not

impeding, but helping other subjects more technical and less interesting. It would be desirable, if it were possible, to add a supplementary chapter to No. IV., 'On the Schoolmaster's Use of Words,' as an aid to him in the teaching of Religion, Geography, and History. This province of the subject should be borne in mind by teachers, and if the foregoing pages have been understood and mastered the use of words referred to can be developed and applied by their own intelligence.

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